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**Search History****Today's Date: 4/16/2001**

<u>DB Name</u>	<u>Query</u>	<u>Hit Count</u>	<u>Set Name</u>
USPT	14 and java	32	<u>L5</u>
USPT	13 and applet	33	<u>L4</u>
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USPT	(financial near1 institution)	1678	<u>L1</u>

**WEST**

Generate Collection

L5: Entry 23 of 32

File: USPT

Aug 3, 1999

DOCUMENT-IDENTIFIER: US 5933816 A

TITLE: System and method for delivering financial services

## ABPL:

A delivery system and method allow a financial institution to provide financial services to a plurality of remote devices, such as personal computers, personal data assistants, and screen phones. In addition to providing services to these remote devices, the system and method provide services to automatic teller machines (ATMs), external service providers, and internally within the financial institution to staff terminals and to the individual branches of the financial institution. The delivery of financial services is not limited to any particular network but rather may be provided through dial-in access, Internet access, on-line service provider access, or other types of delivery networks. The system is comprised of a set of reusable global components which are modular and are organized into services sets. By separating the components of the system into independent components, the system and method can be developed and tested on a component level rather than the entire system level, thereby substantially reducing the development and maintenance cycle time. The system and method operate in sessions and, for instance, employ a dialog component for gathering information from a customer, a rule broker component for providing answers to the various legal and regulatory rules in a particular country, a language man component for selecting appropriate language, a transaction executor component for performing transactions, and a presentation manager component for formatting outputs to the customer. The system and method provide state-of-the art interfaces with interface components and support legacy applications with legacy app bridge components.

## BSPR:

Banks and other institutions that provide financial services are facing increased amounts of competition and are being pressured to provide a greater diversity of services to their customers. Not too long ago when customers traveled to the bank to make all of their transactions, the bank could focus on the customer-bank teller interaction to improve the quality of services. The bank could improve the quality of service by staffing a larger number of tellers at peak times and by offering drive through services. Banks developed internal computer systems and provided their tellers with staff terminals so that the bank tellers could access the books of

the bank when they were entering customer transactions.

BSPR:

The invention, in a preferred embodiment, is a system and method for delivering financial services to a remote device. Through the remote device, a customer or employee of a financial institution can select a mini-app dialog component to perform a function. Preferably, each function that may be performed is represented by a separate mini-app dialog component. Upon selection of a function, the mini-app dialog component collects information needed to perform the requested function and instantiates a transaction executor component to carry out the function. The remote device may comprise any type of device, such as a personal computer, screen phone, ATM, personal data assistant, or an internal staff terminal. The remote device may access the system in a variety of ways, such as through an external service provider, through the Internet, or through dial-up access. Thus, the system provides a single base for interfacing with all types of remote devices.

BSPR:

In generating graphic interfaces, the system and method preferably separate content from format to accommodate variations in the remote devices. The system includes a presentation manager which maps messages from a canonical representation into the format desired for a particular remote device. The content of the messages is regulated through a language man component. In response to a request for a named phrase, the language man component provides the phrase in the language and the content specific for that customer and that remote device. As a result, the system and method can provide state of the art user interfaces, can provide interfaces consistent for a financial institution, and can allow a customer to custom design a user interface.

DEPR:

Reference will now be made in detail to the preferred embodiment of the invention, an example of which is illustrated in the accompanying drawings. The invention is described with reference to a system 10 for use by a bank, although the system 10 may be employed by any type of institution offering financial services. The financial system 10 includes a delivery system 12 for providing financial services to a variety of remote devices. These remote devices include a screen phone 14, an automated teller machine (ATM) 16, such as Citibank's CAT/CASST terminals, a personal computer 18, or a personal data assistant (PDA) 20. The remote devices can practically be any type of device and can be installed with any suitable software for communicating with the delivery system 12, such as a standard web browser or any other third party software product. The remote devices that the delivery system 12 can provide financial services to is therefore not limited to any particular class or type of remote device but instead may include any future device or system. Further, the delivery system 12 provides services not only to customers of a financial institution but may also provide services internally to the institution, such as at staff terminals 26.

## DEPR:

The touch point and display set 30 provides the actual customer display and input facility on the remote device. The touch point and display set 30 includes a touch point and display component 31 that displays pages on the remote device screen and sends customer inputs to the delivery system 12. The touch point and display component 31 is responsible for managing the link/session level protocols with an application server on the remote device. The touch point and display component 31 also decodes the server interface protocol and outputs a page to the local screen of the remote device. The touch point and display component 31 acquires customer inputs, including choice selections and forms input, encodes the input in the server interface protocol, and sends the customer input to the touch point interface set 40. For Internet sessions with the delivery system 12, the touch point and display component 31 preferably comprises a web browser that handles protocols such as TCP/IP, HTTPS, and, less preferably, FTP.

## DEPR:

The touch point interface services set 40 provides an interface to the touch point services set 50 and includes a touch point interface component 41. The touch point interface component 41 is responsible for managing the link/session level protocols with a remote device. The touch point interface component 41, for instance, notifies the session services set 130 to start a new session on initial contact from a remote device. The touch point interface component 41 also encodes messages in the interface protocol, sends messages to the touch point services set 50, and decodes messages received from the touch point services set 50. The touch point interface component 41 further routes received messages to an appropriate session front door man component 51 of the touch point services set 50. For Internet sessions with the delivery system 12, the touch point interface component 41 preferably comprises a web server which handles the protocols such as TCP/IP, HTTPS, and, less preferably, FTP.

## DEPR:

The issuer component 112 represents the issuing business for the customer-ID information that was used to start a session. The issuer component 112 is the rule authority for all general, issuer related, non mini-app specific business rules. The issuer component 112 supports query of issuer information and supports answering questions about general issuer business rules. The issuer component 112 has information about the issuer of customer's identity, for instance, business code, financial institution identifier, and issuer type, such as bank card, credit card, or other third party card. The issuer component 112 knows the PIN length supported and the issuer country and ISO currency code for the issuer default currency. The issuer component 112 has a list of customer relationships for the issuer and a list of accounts for the issuer. The issuer component 112 also knows the products and services supported and the transaction and product limits. The issuer component 112 is informed of the issuer's presentation rules,

such as data, format, and account number masking, and the issuer's local rules, such as collect call support, currency, and product names. The issuer component 112 also knows the issuer's servicer-ESP communication rules, for instance, profile message support, the languages supported, and the navigation schemes supported. The issuer component 112 knows when or how to authenticate customer, such as by local validation of public key certificate, immediate to issuer, background to issuer, or delayed to first transaction.

DEPR:

The acquirer component 114 contains information and answers about the acquirer. The acquirer component 114 represents the acquiring business for a session and is the rule authority for business rules that are acquirer related, but not mini-app specific. For rules that are acquirer related and mini-app specific, separate rule authorities may be registered as part as a dynamic installation of a mini-application. The acquirer component 114 supports query of acquirer information and processes certain specific rules associated with the acquirer. The acquirer component 114 knows information about acquiring business for a session, for instance a financial institution identifier and business code, and knows the country or region of acquirer.

DEPR:

The delivery capabilities component 133 holds data and answers questions about the delivery capabilities of a remote device for a particular session. The information contained within the delivery capabilities component 133 is communicated either explicitly or implicitly in the start up message from the remote device causing the initiation of a session. The delivery capabilities component 133 is available for interrogation from other components within the delivery system 12. The delivery capabilities component 133 answers questions about the delivery capabilities of a remote device. For instance, for a web browser remote device, the delivery capabilities would include the HTML level, less preferably, FTP, picture formats, applet types, script types, and international fonts. The delivery capabilities component 133 is instantiated by the session controller component 131 with the initial capabilities based on access mode, for example, Internet, dial-in, or CAT.

DEPR:

To allow for both local delivery to the CAT 16 and to other remote devices, the basic rendering model is indirect. Preferably, none of the components within the dialog services set 80 draw directly to the screen but rather produce a stream of data, the app stream, that will ultimately be rendered by the touch point and display components 31. The app stream is preferably an HTML encoded stream of named objects or tokens with a named template or forms. The dialog services set 80 may then set the properties of these named objects within named templates. Although the dialog services set 80 may set any property of a named object, the delivery system 12 preferably separates content from style so that a specific mini-app can be leveraged and delivered across many delivery vehicles. In

general, the mini-app dialog component 83 will operate by setting the values of named properties of named objects and named templates, such as TemplateX.ObjectY.PropertyZ=Value.

DEPR:

Separation of content from style provides many benefits. For instance, separation allows the style and layout of a presentation to be defined and changed independent of the code in the mini-app dialog components 83. Also, separation allows a single mini-app dialog component 83 to deliver its functions to more than one target delivery vehicle through the abstraction of individual objects or tokens. The delivery system 12 allows and encourages the use of abstract objects in the app stream. For instance, the use of an abstract object like "choice" instead of a specific object like "button" allows the choice to manifest itself in many ways on the target delivery vehicle. A choice could manifest itself in one case as a CAT button, in another as a Windows style button, as an HTML anchor, or as an item in a scrolling list.

DEPR:

The delivery vehicle specific templates define layout and style both for frame sets and within a frame. A frame is a well-known concept within Web browsers and is a rectangular portion of screen real estate, which may be bordered or borderless. A frame set defines the layout of frames within an overall screen window. The frame set defines the width and height of each frame and an initial link to the HTML page or program that will provide the content for that frame. The presentation manager component 52 manages the overall display. Based on templates, the presentation manager component 52 assigns a frame or frames to a navigation shell component 82. In turn, based on templates, the navigation shell component 82 assigns a frame to a mini-app dialog component 83. Within a frame, the layout of that frame is controlled by a delivery vehicle specific template. By assigning frames that bound the display space of specific mini-app dialog components 83, an independence between one mini-app dialog component 83 and another can be maintained and different navigation shell components 82 may be installed independently of the mini-app dialog component 83. The presentation manager component 52 will model the display space as a set of frames and, based on the delivery vehicle specific templates for non-framed devices, the presentation manager component 52 will merge information from many frames into a single frame for delivery to a remote device.

DEPR:

The canonical templates that mini-app dialog components 83 use are bounded by a frame. The mini-app dialog components 83 are responsible for setting the properties of the named objects within its canonical templates. One of these properties that the mini-app dialog component 83 is responsible for setting for "choice" objects is a link. A link is a standard universal resource locator (URL) that specifies the target object, such as the mini-standard HTML encoding style of name-value pairs. The basic app stream interface can be produced with any programming language. For instance, any programming language

that can produce a text stream can also produce an app stream. The programming language preferably should be able to communicate via COM but otherwise has no restrictions. The app stream is a multi-channeled stream capable of supporting the basic text based app stream as well as other mime types.

DEPR:

The delivery system 12 can easily support multi-media. HTML has well-known means for embedding and referencing a wide range of media types, for instance graphics, sounds, and movies. The delivery system 12 preferably uses standard HTML encoding techniques to incorporate this ever expanding set of media types into the delivery system 12 for use by remote devices. To support various error conditions and easy switching and restarting of mini-app dialog components 83, the presentation manager component 52 preferable caches the last page output for each frame that it manages.

DEPR:

The delivery system 12 is preferably language neutral. The applications can be written in any language which supports the object model used to specify the delivery system 12. Consequently, different components may be implemented in different languages and may migrate to a different language over time. As examples, VisualBasic, C++, and Java may be used in implementing the components of the delivery system 12.

DEPR:

The delivery system 12 advantageously provides a common application base for customer activated applications for all remote devices. Thus, a financial institution need not have a first delivery system for its ATMs, a second delivery system for its staff tellers, a third delivery system for personal computers or PDAs, and a fourth delivery system for external service providers. Instead, home banking devices such as a personal computer 18, a smart phone 14, an Internet browser remote device 24, and a PDA 20 may all access the books of a financial institution through the delivery system 12. In addition, the delivery system 12 may provide financial services to its customers through its CAT/CASST 16 and to its employees through branch and CSR staff platforms 26.

DEPR:

The delivery system 12 provides a smooth gradual migration from legacy applications into a new architecture. The delivery system 12 supports the harmonious coexistence of software built under the delivery system 12 along with existing legacy AGS applications. As a result, financial institutions do not need to introduce a totally new system but rather may leverage their existing legacy AGS applications while taking advantage of the delivery system 12.

CLPR:

35. The system as set forth in claim 1, wherein the remote device is a staff terminal used within a financial institution providing the financial services.

CLPR:

47. The method as set forth in claim 39, wherein receiving the request comprises receiving the request from a staff terminal located within a financial institution delivering the financial services.



**WEST**[Generate Collection](#)**Search Results - Record(s) 11 through 20 of 32 returned.**☐ 11. Document ID: US 6006204 A

L5: Entry 11 of 32

File: USPT

Dec 21, 1999

US-PAT-NO: 6006204

DOCUMENT-IDENTIFIER: US 6006204 A

TITLE: Correlating transaction records via user-specified  
identifier creating uncleared transaction

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KMMC	Draw Desc	Image
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☐ 12. Document ID: US 6002767 A

L5: Entry 12 of 32

File: USPT

Dec 14, 1999

US-PAT-NO: 6002767

DOCUMENT-IDENTIFIER: US 6002767 A

TITLE: System, method and article of manufacture for a  
modular gateway server architecture

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KMMC	Draw Desc	Image
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☐ 13. Document ID: US 5996076 A

L5: Entry 13 of 32

File: USPT

Nov 30, 1999

US-PAT-NO: 5996076

DOCUMENT-IDENTIFIER: US 5996076 A

TITLE: System, method and article of manufacture for secure  
digital certification of electronic commerce

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KMMC	Draw Desc	Image
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☐ 14. Document ID: US 5995975 A

L5: Entry 14 of 32

File: USPT

Nov 30, 1999

US-PAT-NO: 5995975  
DOCUMENT-IDENTIFIER: US 5995975 A  
TITLE: Dictionary based process for object containment

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Draw Desc	Image
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☐ 15. Document ID: US 5987132 A

L5: Entry 15 of 32                      File: USPT                      Nov 16, 1999

US-PAT-NO: 5987132  
DOCUMENT-IDENTIFIER: US 5987132 A  
TITLE: System, method and article of manufacture for  
conditionally accepting a payment method utilizing an  
extensible, flexible architecture

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Draw Desc	Image
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☐ 16. Document ID: US 5982891 A

L5: Entry 16 of 32                      File: USPT                      Nov 9, 1999

US-PAT-NO: 5982891  
DOCUMENT-IDENTIFIER: US 5982891 A  
TITLE: Systems and methods for secure transaction management  
and electronic rights protection

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Draw Desc	Image
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☐ 17. Document ID: US 5983208 A

L5: Entry 17 of 32                      File: USPT                      Nov 9, 1999

US-PAT-NO: 5983208  
DOCUMENT-IDENTIFIER: US 5983208 A  
TITLE: System, method and article of manufacture for  
handling transaction results in a gateway payment  
architecture utilizing a multichannel, extensible, flexible  
architecture

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Draw Desc	Image
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☐ 18. Document ID: US 5978840 A

L5: Entry 18 of 32

File: USPT

Nov 2, 1999

US-PAT-NO: 5978840

DOCUMENT-IDENTIFIER: US 5978840 A

TITLE: System, method and article of manufacture for a payment gateway system architecture for processing encrypted payment transactions utilizing a multichannel, extensible, flexible architecture

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Draw Desc	Image
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☐ 19. Document ID: US 5963924 A

L5: Entry 19 of 32

File: USPT

Oct 5, 1999

US-PAT-NO: 5963924

DOCUMENT-IDENTIFIER: US 5963924 A

TITLE: System, method and article of manufacture for the use of payment instrument holders and payment instruments in network electronic commerce

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Draw Desc	Image
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☐ 20. Document ID: US 5949876 A

L5: Entry 20 of 32

File: USPT

Sep 7, 1999

US-PAT-NO: 5949876

DOCUMENT-IDENTIFIER: US 5949876 A

TITLE: Systems and methods for secure transaction management and electronic rights protection

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Draw Desc	Image
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**WEST**[Generate Collection](#)**Search Results - Record(s) 1 through 10 of 32 returned.**☐ 1. Document ID: US 6178409 B1

L5: Entry 1 of 32

File: USPT

Jan 23, 2001

US-PAT-NO: 6178409

DOCUMENT-IDENTIFIER: US 6178409 B1

TITLE: System, method and article of manufacture for multiple-entry point virtual point of sale architecture

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Draw Desc	Image
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☐ 2. Document ID: US 6163772 A

L5: Entry 2 of 32

File: USPT

Dec 19, 2000

US-PAT-NO: 6163772

DOCUMENT-IDENTIFIER: US 6163772 A

TITLE: Virtual point of sale processing using gateway-initiated messages

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Draw Desc	Image
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☐ 3. Document ID: US 6157924 A

L5: Entry 3 of 32

File: USPT

Dec 5, 2000

US-PAT-NO: 6157924

DOCUMENT-IDENTIFIER: US 6157924 A

TITLE: Systems, methods, and computer program products for delivering information in a preferred medium

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Draw Desc	Image
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☐ 4. Document ID: US 6119105 A

L5: Entry 4 of 32

File: USPT

Sep 12, 2000

US-PAT-NO: 6119105  
DOCUMENT-IDENTIFIER: US 6119105 A  
TITLE: System, method and article of manufacture for  
initiation of software distribution from a point of  
certificate creation utilizing an extensible, flexible  
architecture

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Draw Desc	Image
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☐ 5. Document ID: US 6072870 A

L5: Entry 5 of 32

File: USPT

Jun 6, 2000

US-PAT-NO: 6072870  
DOCUMENT-IDENTIFIER: US 6072870 A  
TITLE: System, method and article of manufacture for a  
gateway payment architecture utilizing a multichannel,  
extensible, flexible architecture

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Draw Desc	Image
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☐ 6. Document ID: US 6070149 A

L5: Entry 6 of 32

File: USPT

May 30, 2000

US-PAT-NO: 6070149  
DOCUMENT-IDENTIFIER: US 6070149 A  
TITLE: Virtual sales personnel

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Draw Desc	Image
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☐ 7. Document ID: US 6061660 A

L5: Entry 7 of 32

File: USPT

May 9, 2000

US-PAT-NO: 6061660  
DOCUMENT-IDENTIFIER: US 6061660 A  
TITLE: System and method for incentive programs and award  
fulfillment

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Draw Desc	Image
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☐ 8. Document ID: US 6061665 A

L5: Entry 8 of 32

File: USPT

May 9, 2000

US-PAT-NO: 6061665

DOCUMENT-IDENTIFIER: US 6061665 A

TITLE: System, method and article of manufacture for dynamic negotiation of a network payment framework

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KMC	Draw Desc	Image
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☐ 9. Document ID: US 6026379 A

L5: Entry 9 of 32

File: USPT

Feb 15, 2000

US-PAT-NO: 6026379

DOCUMENT-IDENTIFIER: US 6026379 A

TITLE: System, method and article of manufacture for managing transactions in a high availability system

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KMC	Draw Desc	Image
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☐ 10. Document ID: US 6016484 A

L5: Entry 10 of 32

File: USPT

Jan 18, 2000

US-PAT-NO: 6016484

DOCUMENT-IDENTIFIER: US 6016484 A

TITLE: System, method and article of manufacture for network electronic payment instrument and certification of payment and credit collection utilizing a payment

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KMC	Draw Desc	Image
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10 Documents, starting with Document: 11

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